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RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECTIVENESS OF SNAKE AND LADDER GAME ON THE LEVEL OF KNOWLEDGE REGARDING ORAL HYGIENE AMONG SCHOOL CHILDREN IN ALCHEMY PUBLIC SCHOOL, COIMBATORE

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Abstract

Objectives: a) To assess the level of knowledge regarding oral hygiene among school children in experimental group and control group. b) To provide snake and ladder game on oral hygiene among school children in experimental group. c) To assess the effectiveness of snake and ladder game on the level of knowledge regarding oral hygiene among school children in experimental group. d) To compare the pre-test and post test score in experimental and control group. e) To associate the post-test level of knowledge regarding oral hygiene among school children in experimental and control group with their selected demographic variable.

Methodology: Research approach: Experimental. Research Design: Descriptive design. Research Settings: study will be conducted at selected alchemy school. Population: children 6 to 8 years of age those who are studying in selected alchemy school. Sample size: 60 students. Sample technique: purposive sampling technique.

Result: inferential and descriptive statistics were used to analyse the values. The obtained mean value in post test score was 20.37 in experimental group. And the calculated paired "t" test value was 16.06 in experimental group. Significant at ($p < 0.5$) There is a significant association between the experimental group in age of the children, class of studying, sources of information, education of father and education of mother in the post-test level of knowledge regarding oral hygiene among children.

Conclusion: The study findings the revealed that the effectiveness of snake and ladder game on improving the level of knowledge regarding oral hygiene especially among school children was respective they have learn through the play way method.

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Introduction:-

Children's are vital to the nations present and its future. In World population of children are 2.2 billion. In India there are 164.5 million children's. 530 millions of children's are affected oral disease in world wide. In India 60 to 80 % of children's are affected oral disease. The main reason of oral health problems in children all over the world is that their

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parents are too busy in their own lives, and they don't seem to spend adequate time on caring proper oral care of their children. Children don't know how to care their consequence of bad oral hygiene and oral health. Therefore many children facing recurrent dental problems like tooth decay, yellow teeth, bad smelling mouth, gum swelling and gum diseases like gingivitis.

Oral health is an important part of overall health, which endow to each individual's well-being and standard of life by positively affecting physical, mental and social health, presence, and interpersonal relations. We know that poor oral health can affect someone's ability to eat, speak, smile and socialize normally. From early in life, as part of the overall health and wellbeing of a child, good oral health contributes to their 'Getting the Best Start in Life' and school readiness. The overall health of the mouth including the following: gums and their supporting ligaments and bone, connective tissues, and the upper and lower jaws, the hard and soft palate, the tongue, the lips, the salivary glands, the soft mucosal tissue lining of the mouth and throat, the chewing muscles, which are connected to the skull by the temporomandibular joints.

WHO defines oral health as "a state of being free from chronic mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, tooth loss, and other diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking, and psychosocial wellbeing?" Dental caries is the most common type of oral health problem globally.

Tooth decay is an infection that left untreated can cause abscesses and tooth loss, low self-esteem, and weight issues in children. Untreated oral abscess spreads to brain and lead even to death Games are a creative and innovative method. They have long been used as an educating strategy in both children's and adults teaching. The origins of Snakes and Ladders are to date back to India in the second century BC. It was originally used by religious teachers to teach children about the vary between good and bad - climbing up the ladders represent good, and sliding down the snakes represent bad. This game can also be used as a tool to educate, entertain and to build up interactive communication among the players. Nurses play a vital role in avoiding oral health problems. Nurse can be active members of preventive teaching program. About the essential of constant dental care, oral hygiene and dietary management.

Nurses should motivate good oral hygiene and teach correct brushing technique to both children and their parents. Child felt the withholding of sugary sweet as a punishment. School nurses have a great opportunity to involving in community dental needs identification, to educate children regarding dental hygiene and to make referral.

Materials And Methods:-

For The Present Study, quantitative approach with, quasi experimental pre and post-test with descriptive design was used. The study was conducted in at alchemy public school in Coimbatore. A study was conducted after obtaining from ethical committee of PPG. A formal permission was obtaining from the principal of alchemy public school and oral concern from the parents. Total 60 students selected for in this study 30 children in experimental group and 30 children was control group. Explain the procedure to the children. The Main study was conducted for 4 weeks at Alchemy public school in Coimbatore. For first week for Demographic data was collected by distribution of the Self-administered questionnaire (English and Tamil tools) directly from the students and pre-test was conducted. Then selected experimental group Snake and ladder game was provided to them. Weekly 5 days they were played game in afternoon session each day 6 children 2 times were played. Then after 2 week post-test was conducted.

Result And Discussion:-

The result of the present study samples comprised 60 children's were 30 in experimental group and 30 in control group. The mean score for level of knowledge about oral hygiene in control group was 11.6 and in experimental group was 20.37.

The calculated standard deviation value in control group was 4.64 and in experimental group was in 4.29. The total score revealing that snake and ladder game had been effective in creating the awareness and knowledge regarding oral hygiene. The calculated paired "t" test value was 5.8 in control group and 16.06 in experimental group. The calculated independent "t" test result in pre-test of control and experimental group was 0.31 and post-test of control and experimental group was 7.5.

There is a significant association between the experimental group in age of the children, class of studying, sources of information, education of father, and education of mother in the post- test level of knowledge regarding oral hygiene among children.

The distribution of **demographic variables** for children's majority of them. Regarding the **age of the child** to 6 to 7 years and 18 (60%) belongs to 6 to 7 years in experimental group. In control group 17(56.7%) belong to 6 to 7 years. About **gender of the child** 15(50%) were males and 15(50%) were females in experimental group. 15(50%) were males and 15(50%) were females in control group. Regarding the **class of studying** 18 (60%) belongs to 2nd standard in experimental group. In control group 17(56.7%) belongs to 2nd standard. About **birth order of the child** 14(46.7%) were first child in experimental group. 13(43.3%) were second child in control group. **With Previous information regarding oral hygiene** were 19 (63.3%) children's says 'yes' 11(36.7 %) children's says 'no' in experimental group. Were 17(56.7%) children's says 'yes' 13 (43.3 %) children's says 'no' in control group. In that the children says 'yes' in previous information regarding oral hygiene 8(44.4%) by family members in experimental group. 7(41.2%) by any others like media, in control group. Regarding the child **Father Education level** 12 (40%) Graduate in experimental group. In control group 11 (36.6%) Regarding the child **Mother Education level** (36.7%) Graduate in experimental group. In control group 11 (36.6%) Regarding the child **Occupation of the Father** level Tertiary workers 10(33.3%) belong to Secondary workers 10(33.3%) belong to in experimental group. In control group Tertiary workers 10(33.3%) belong to Secondary workers **Occupation of the Mother** level 8(26.7%) belong to Secondary workers.

Table 1

Frequency and Percentage distribution of Children according to their Pre and Post-test level of Knowledge on Oral hygiene in Experimental and Control group.

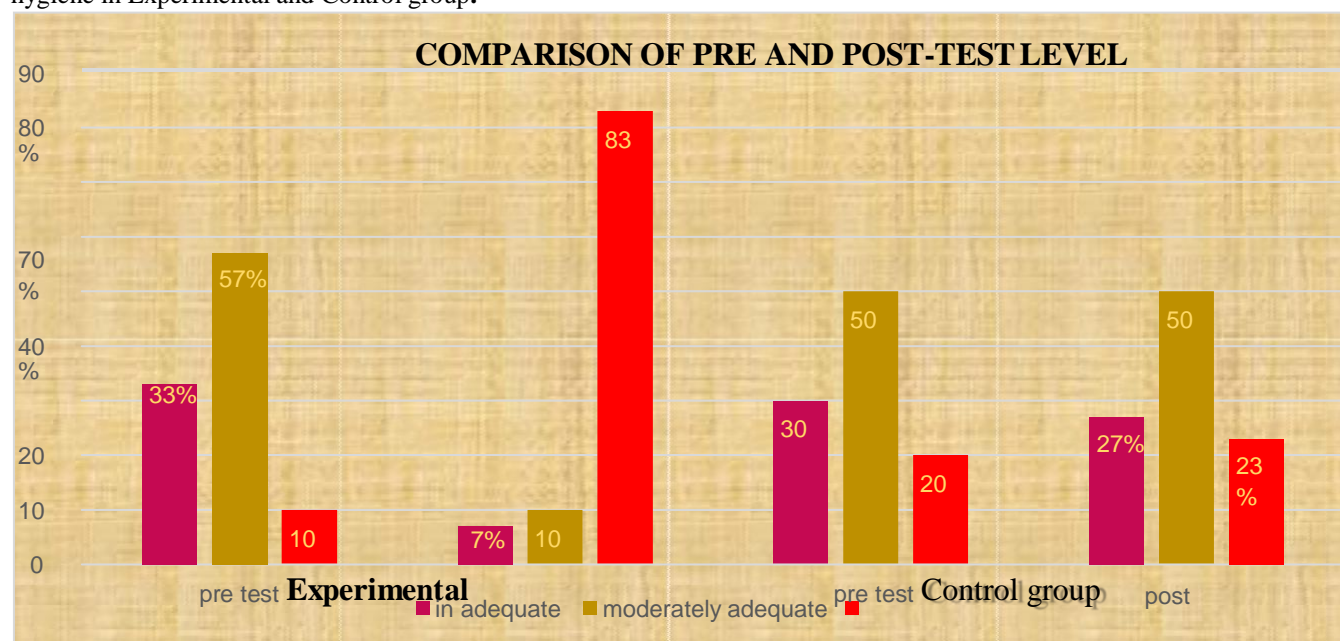


Table 1 shows pre-test value of children in experimental group members and the percentage of inadequate 10 members 33%, moderately adequate 17 members 57%, and adequate 3 members 10%. In control group members and the percentage of inadequate 9 members 30%, moderately adequate 15 members 50%, and adequate 6 members 20%. Post- test value of children in experimental group members and the percentage of inadequate 2 members 7%, moderately adequate 3 members 10%, and adequate 25 members 83%. In control group members and the percentage of inadequate 8 members 27%, moderately adequate 15 members 50%, and adequate 7 members 23%.

Table 2:- Effectiveness of snake and ladder game on post-test level of knowledge of children regarding oral hygiene in experimental group and control group. N = 60

S.NO	Effectiveness of snake and ladder game	Mean	S.D	paired 't' Value
1.	Control Group (n=30)	11.6	4.64	5.8

2.	Experimental Group (n=30)	20.37	4.29	16.06
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Table 2 shows the post-test level of knowledge in control group mean was 11.6 and the standard deviation value was 4.64 and the post-test level of knowledge mean was 20.37 and the standard deviation value was 4.29 in the experimental group respectively.

The paired “t” test value of control group 5.8 $p < 0.05$ and experimental group 16.06 $p < 0.05$ shows there is a significant difference exist between the experimental and control group that the level of knowledge. Hence at experimental post-test level of knowledge has been increased.

Table 3:- Effectiveness of snake and ladder game on post-test level of knowledge score of children regarding oral hygiene in pre and post-test of experimental group and control group N=60.

S.NO	Effectiveness of snake and ladder game	Independent ‘t’ value	
		Pre test	Post test
1.	Control Group (n=30)	0.31	7.5
2.	Experimental Group (n=30)		

Table 3 shows the independent “t” test indicates that at the pre-test took the control and experimental groups were homogenous at the post test the “t” value 7.5 $p < 0.05$ reveals that there was a significant difference found between the post-test level of knowledge of control and experimental group. Knowledge had improved in the experimental group.

There is a significant association between post-test level of knowledge of children regarding oral hygiene with selected demographic variables of experimental and control group. In the control group age of the children, age of the children class of studying sources of information and educational status of father were associated with the level of knowledge regarding oral hygiene among children. Other demographic variables are not associated with their level of knowledge regarding oral hygiene among children.

In the experimental group age of the children class of studying sources of information, education of father, and education of mother were associated with the post-test level of knowledge regarding oral hygiene among children. Other demographic variables are not associated with their level of knowledge regarding oral hygiene among children.

Conclusion:-

This experimental study done to assess the effectiveness of snake and ladder game on the level of knowledge regarding oral hygiene among school children in alchemy public school, Coimbatore. The findings of the study showed that the snake and ladder game was more effective in improving the knowledge of the children regarding oral hygiene. There is a significant association between the experimental group in age of the children class of studying sources of information, education of father, and education of mother in the post-test level of knowledge regarding oral hygiene among children. Oral hygiene is necessary for every human being and Play way method was the effective and easy way to teach the children regarding oral hygiene. As a health care professional we are in the position to teach children and thereby to adopt fine and healthy practice.

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